

**United States Patent** [19]**Chen**[11] **Patent Number:** **4,618,213**[45] **Date of Patent:** \* **Oct. 21, 1986**

[54] **GELATINOUS ELASTOMERIC OPTICAL LENS, LIGHT PIPE, COMPRISING A SPECIFIC BLOCK COPOLYMER AND AN OIL PLASTICIZER**

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[\*] **Notice:** The portion of the term of this patent subsequent to Jan. 18, 2000 has been disclaimed.

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**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 458,703, Jan. 17, 1983, abandoned, which is a continuation-in-part of Ser. No. 134,977, Mar. 28, 1980, Pat. No. 4,369,284, said Ser. No. 134,977, is a continuation-in-part of Ser. No. 916,731, Jan. 19, 1978, abandoned, which is a continuation-in-part of Ser. No. 815,315, Jul. 13, 1977, abandoned, which is a continuation-in-part of Ser. No. 778,343, Mar. 17, 1977, abandoned.

[51] **Int. Cl.<sup>4</sup>** ..... **C08K 5/01; G02B 6/00; G02B 5/04**

[52] **U.S. Cl.** ..... **350/96.34; 350/286; 350/409; 446/385; 446/486; 524/476; 524/505**

[58] **Field of Search** ..... **524/476, 505; 350/409, 350/286, 96.34; 446/385, 486**

[56] **References Cited****U.S. PATENT DOCUMENTS**

2,830,402	4/1958	Schleich .....	446/385
4,136,699	1/1979	Collins et al. ....	128/290 R
4,176,240	11/1979	Sabia .....	174/23 C
4,259,540	3/1981	Sabia .....	524/505
4,369,284	1/1983	Chen .....	524/476
4,492,428	1/1985	Levy .....	524/505

**FOREIGN PATENT DOCUMENTS**

1268431 3/1972 United Kingdom .

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[57] **ABSTRACT**

A novel gelatinous composition is disclosed which contains an intimate melt blend admixture of poly(styrene-ethylene-butylene-styrene) triblock copolymer having said styrene end block to ethylene and butylene center block ratio within the range of from between 31:69 to 40:60, and high levels of a plasticizing oil.

The gelatinous composition is transparent and have a novel combination of properties including unexpectedly high elongation and tensile strength and excellent shape retention after extreme deformation under high-velocity impact and stress conditions. The gelatinous products of this invention are soft, flexible, and have elastic memory, characterized by a gel rigidity of from about 20 gram to about 700 gram Bloom. These and other properties are particularly essential for the gelatinous composition to have utility as toys, therapeutic hand exercising grips, shock absorbers, acoustical isolators, and other uses.

**22 Claims, No Drawings**